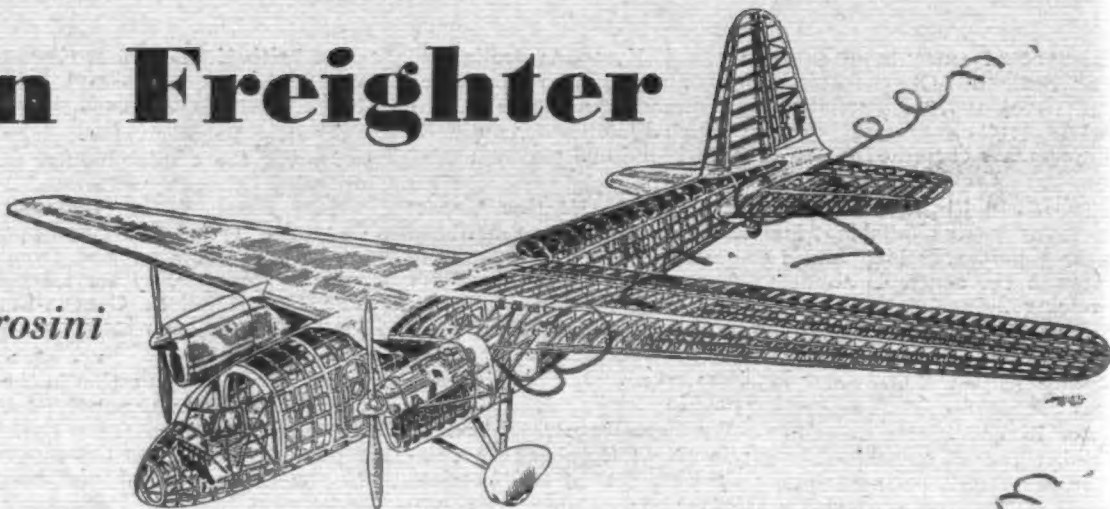


Italian Freighter

*The S.A.1—Ambrosini
P.512 Twin*



SINCE the revival of commercial flying in Italy, a considerable amount of initiative has been shown in the field of domestic air transportation, and a comprehensive internal airline network is in process of formation. It is hoped that this network will present none of the shortcomings characteristic of pre-war domestic services operated in Italy. At the present time, a miscellany of aircraft types are in service, not all of which are ideally suited for short-haul internal services. Thus, it is natural that many Italian operators are looking for an economical "workhorse" aircraft with which to replace present equipment. To fulfill this requirement, the S.A.I.-Ambrosini concern of Milan is constructing the prototype of a light freighter, the P.512, intended primarily for short-haul internal services.

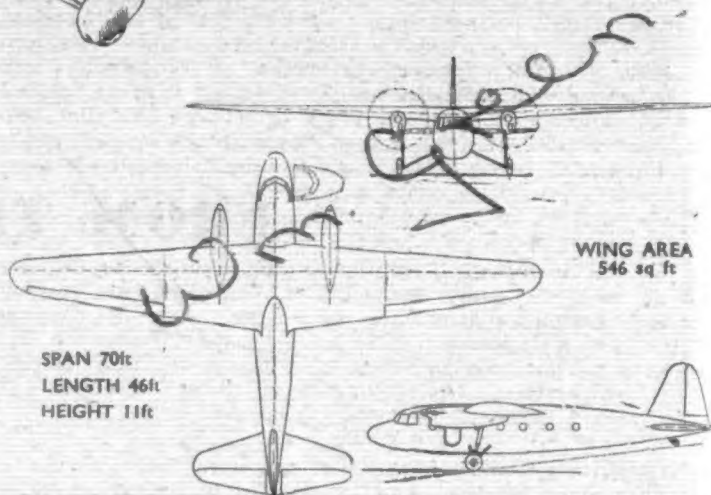
Designed by Ing. Ermenegildo Preti, the P.512 is a direct development of the AL.12P cargo-carrying glider produced by Aeronautica Lombarda during the later war years. Power is provided by two Alfa 115 ter six-cylinder in-line inverted air-cooled engines, each of which produces 225 b.h.p. for take-off and drives two-blade, metal, v.p. airscrews. Other engines in the 200-250 h.p. class (i.e., the Gipsy Queen 30) could be installed. The P.512 retains all the constructional features of the AL.12P glider, including the nose section which hinges to starboard, facilitating the stowage of bulky freight.

Basically, the P.512 is a twin-engined high-wing cantilever monoplane primarily of wooden construction. The high-aspect ratio wing is of monospar construction and is built in one piece. An auxiliary rear spar carries the flaps and ailerons. The main fuselage section is an all-wood semi-monocoque structure of elliptical section.

A departure from the otherwise all-wood structure is the fuselage nose section which has a metal tubular frame covered by plywood. This section provides accommodation for a crew of two in side-by-side seats and hinges to starboard to give access to the cargo compartment. This compartment has a capacity of 494 cu ft, and the length that can normally be used is 21ft 3½in. The height is 5ft 6½in and the width 4ft 11in.

The undercarriage is fixed and the steerable tail wheel has an oleo-pneumatic damper and automatically returns to the central position.

In order to facilitate loading operations the fuselage is fitted with a small tackle to drag bulky packages along the inclined floor of the cargo compartment. Rings are provided on the floor and compartment walls for making the load fast.



The lever which controls the opening of the fuselage nose is adjustable from the cockpit and is so placed that flight controls cannot be moved unless the lever is in the closed position.

Main dimensions, weights and loadings are as follows: Span, 70ft; length, 46ft; height (tail down) 11ft; wing area, 546 sq ft. Empty weight, 4,410 lb; gross weight, 7,937 lb; useful load 3,527 lb. Wing loading, 14.5 lb/sq ft; power loading, 17.6 lb/h.p.

Performance: Maximum speed at sea level, 155 m.p.h.; cruising speed, 143 m.p.h.; minimum speed without flaps, 60 m.p.h., and with flaps, 53 m.p.h. Rate of climb at sea level 970 ft/min. Ceiling on one engine, 6,900ft. Range with a payload of 2,810 lb, 310 miles; with a payload of 1,650 lb, 1,240 miles. W. G.

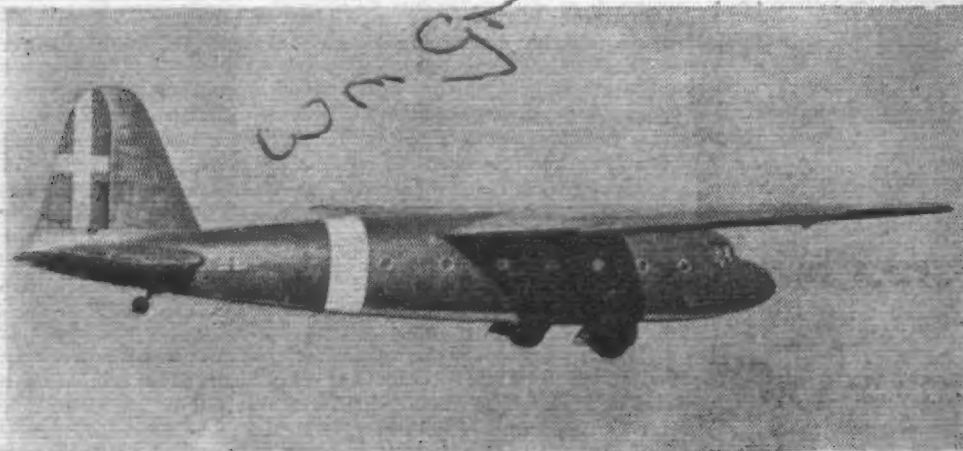
SWEDISH SIX-YEAR PLAN

A SIX-YEAR plan to increase the strength of the Swedish Air Force has been submitted to the Ministry of Defence but has yet to receive the approval of the Swedish Government. The increases now proposed in the strength of the existing number of Wings are additional to the increases in the overall strength of the Air Force approved and made, or in hand.

The ten existing Day Fighter Wings, now of normal strength, are to be enlarged by 50 per cent. Approval to increase the strength of three of the Wings has already been granted. One of the four existing Day Attack Wings is to be converted into a Night Fighter Wing, thereby providing two Night Fighter Wings, and as compensation for the Day Attack Wing, thus withdrawn, two of the remaining three Attack Wings will be strengthened by 50 per cent.

To cover the most important areas of Sweden it is necessary to have at least 13 Day Fighter Wings, but with only ten Wings some parts of the country will be left without adequate defence by the Air Force. Strengthening of the Wings by 50 per cent will give each increased power and mobility within the areas that must be covered.

Without extraordinary measures, such as buying from abroad the proposed increases in the strength of the Air Force should be completed within six years at a cost of about 240 million Swedish crowns.



AL. 12 P. glider from which the freighter has been developed.